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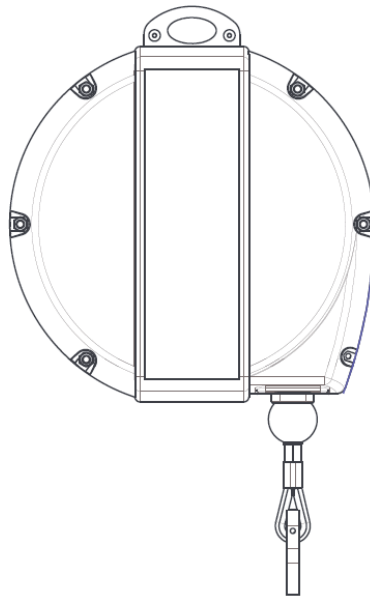


Instructions T100000323 Rev.A

Usage Instructions

Load arrester

Reference: AD412/300



FR
EN
DE
IT
ES
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Equipment complies with Machine Directive 98/37



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EN

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1 Safety instructions:

1- The AD412/300 is a load arrestor: it is a piece of safety equipment intended to brake and arrest a load in the event of it falling.

2- The AD412/300 must not be used to prevent falls from a height of persons, it is not a PPE but a load arrestor.

3- Check that the load guaranteed does not exceed the maximum usage load.

4- Check that the load arrestor does not exceed the maximum number of cycles authorised and that its servicing record is up to date (see chapter 7).

5- Prior to any use of the load arrestor, it is essential that the user instructions are read and such instructions followed.

They must be made available to all persons using such equipment.

6- All persons called upon to install or use a load arrestor must be trained in its method of functioning using these user instructions.

7- Never use the AD412/300 in the event that there is apparent damage.

A visual inspection of the device is recommended prior to each use.

It is obligatory to return to Capital Safety any device which has arrested a fall (fall indicator activated) or which shows apparent damage.

8- Never use a load arrestor which has arrested a fall until it has been serviced.

10- Do not connect the load arrestor in any way other than by its handle.

11- Never obstruct the vertical alignment of the load arrestor with the load.

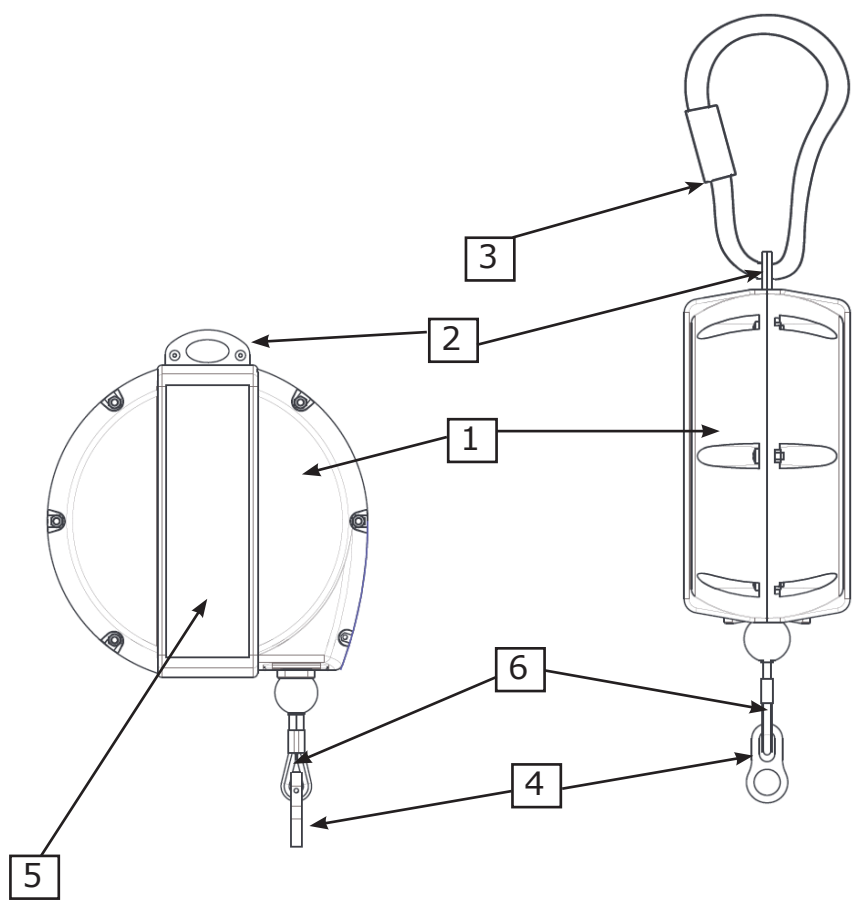
12- Never use the cable as a sling.

13- Never open the AD412/300 or grease the inside of the device.

14- The structure to which the load arrestor is to be connected must have a resistance of 15 kN minimum.

15- When in use, the temperature must be between -20°C and +60°C.

Capital Safety declines all liability in the event that the device is dismantled or modified without its written authorisation.



2 Description

- 1- Housing
- 2- Handle for connection to the structure
- 3- Optional AJ545 carabiner with large gate opening
- 4- Connection to the load, fall indicator
- 5- Tag
- 6- Cable

Technical specifications:

Run:	12 m
Maximum load to be made safe:	300 kg
Minimum load to be made safe:	30 kg
Weight:	6 kg
Cable:	galvanised steel, 5 mm in diameter
Dimensions:	224 mm x 247 mm x 108 mm
Maximum vertical usage speed:	35 m / min
Stopping distance for 300 kg:	1.20 m
Minimum clearance required:	1.40 m
Maximum dynamic impact on the structure when arresting the load:	600 kN
Authorised temperature range:	between -20°C and +60°C
Optional top carabiner:	ref AJ545, galvanised steel, 50 mm gate opening
Maximum number of cycles per day:	60 cycles
Maximum number of cycles prior to servicing:	7000 cycles

The AD412/300 is a load arrestor which immediately brakes and arrests the fall of a load. It is used as a safety device in tandem with the main equipment supporting the load (winch, sling...) in order to prevent its failure (cable breakage, for example). The AD412/300 is connected to the structure above the load to be made safe and always vertical to it. If the load must be moved horizontally (e.g.: bridge crane), the load arrestor must be integral to the moving structure in order always to remain vertical to the load.

The load can therefore be moved in the axis vertical to the load arrestor.

In fact, a return spring allows the cable on the device to wind in and out effortlessly in order to follow the mass in its vertical movement and guarantee that the cable always remains under tension.

The load is connected to the fall indicator on the AD412/300. In the event of a fall, the cable which is under tension very quickly reaches a speed higher than 1.5 m / s.

At this speed, ratchets operating by inertia will lock into a sprocket and engage a brake disc. The latter quickly brakes the load, reducing the impact stress on the equipment, and arrests it definitively in less than 1 m.

The AD412/300 is a load arrestor:

- Light
- Can be connected directly thanks to its top handle for greater facility thanks to the carabiner with large gate opening: 50 mm
- Robust thanks to the material from which its shock-proof housing is made, which also is fitted with a fall indicator providing information as to whether or not the device has arrested a fall

The AD412/300 can be used out of doors.

3 Installation

The AD412/300 must be used vertically and must be connected vertical to the load.

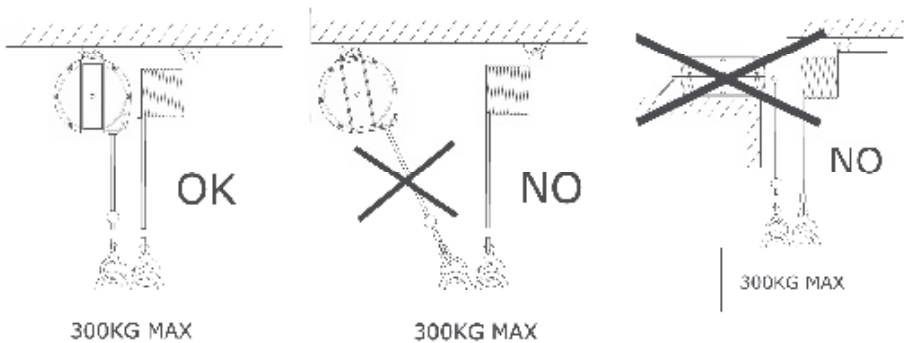


The structure to which it is to be connected must have a resistance of 15 kN minimum.

Before installing the AD412/300, check that there will always be a clearance of at least 1.4 m under the load and that the vertical movement speed of the load will not exceed 35 m / min.

Installation out of doors is possible.

The necessary precautions must be taken in order that, in the event of a fall, the load can be made safe and raised by 10 cm in order to disengage the fall arrestor. Below is a diagram of the contraindications for installation:



4 Inspection prior to use

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Check the following points prior to each use on a daily basis:

- Conformity with the requirements of chapter 3
- Distortion of the housing or the handle
- Excessive wear of the oblong cable guide
- Cable tension offered by the restoring force of the spring.
- Engagement of the ratchets and that the cable is arrested when it is pulled quickly and maintaining the stress.



Fall indicator not activated

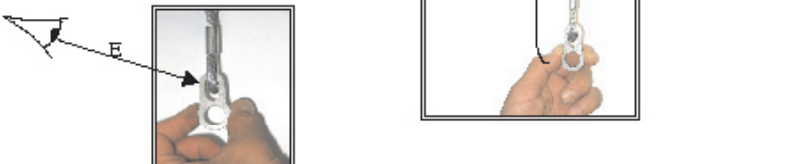


No damage to the cable (over its entire length)

Fit the load arrestor (preferably to the vertical), check that anyone in the surrounding area will not be in the way and is provided with protective gloves, pull the cable completely and check that:

- There is no excessive corrosion (B)
- None of the wires in the cable is broken (C)
- The sleeves are not damaged (D)

Check that the fall indicator is intact: that the pin is neither broken nor completely distorted (E)



Hold onto the cable as it rewinds: do not allow it to rewind by itself under the force of the return spring, but control the rewinding speed.

In the event that the cable is very dirty, use a cloth impregnated with oil to remove the dirt from the cable during rewinding.

5 Use

Before using the AD412/300, check that the structure has a minimum resistance of 15 kN.

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Connect the handle on the AD412/300 to the structure:

- Either by means of a sling or a suitable carabiner with a minimum resistance of 25 kN
- Or by means of the AJ545 carabiner with a 50 mm gate opening available as an option.

Connect the fall indicator to the load by means of a sling or a carabiner with a minimum resistance of 25 kN.

The load is now secure and you can move it.

The cable must remain under tension when the load is moved vertically.

In the event that the cable is not under tension but is locked or shows some slack, use an alternative method to make the load safe and inspect the load arrestor.

Pull the cable manually using protective gloves, exerting the weight of the person at most to eliminate any jamming in the strands of the cable. In the event that the cable does not come free or still shows some slack, immediately replace the load arrestor and return it for servicing.

In the event that the load arrestor locks when there has not been a fall, use another method to make the load safe and raise it by 10 cm. The load arrestor will then allow its ratchets to operate normally.

In the event that the movement speed of 35 m / min has been respected, immediately replace the load arrestor and return it for servicing.

In the event that the load arrestor is triggered by arresting a fall, make the load safe and raise it by 10 cm in order to disengage the load arrestor.

Taken the necessary precautions to return the entire system to working order and ensure its safety. Use a new load arrestor or a serviced load arrestor after the fall.

In the event that you wish to disconnect the load arrestor from the load, do not release the cable on its own but hold on to it (by hand or using a thin cord) as it rewinds into the device.

If you do not do this, it may rewind incorrectly and jam.

It can be used out of doors.

If using out of doors for a long period of time, particularly in difficult conditions (saline atmosphere, rain...), regularly check the condition of the device, particularly the cable, in order to be able to send the device for servicing in the event of premature wear and corrosion.



6 Storage

When not in use, the AD412/300 must be stored in a place protected from bad weather conditions and humidity.

During storage, the temperature must be between -40°C and $+60^{\circ}\text{C}$.

7 Servicing / Maximum usage frequency

The maximum number of cycles per day is 60

Servicing of the AD412/300 is obligatory when **the first of the following limits** is reached: **7000 cycles** or **1 year**.

In the event that the load arrestor is used intensively or has significant numbers of cycles which differ from one day to the next, the user must note the number of cycles in order to be able to send the device for servicing after 7000 cycles.

For servicing to be carried out, the device should be returned to Capital Safety or to any other repair centre approved by Capital Safety.

8 Tags

The self-adhesive tag on the AD412/300 indicates:

- the manufacturer's brand
- the type of device
- the principal safety precautions

The riveted identity plate indicates:

- the length of the cable
- the serial number
- the month and year of manufacture